"A needle valve for filling a mold with an organic material in the liquid state and a method of molding an optical component using this kind of valve"

ABSTRACT

The valve includes:

- a body (25) in which is formed a flow passage
- (30) for the material to be molded having a constriction
- (33) bounded on its upstream side by a change of section
- (34) forming a seat, and
- a needle (40) mounted in the body (25) and having a closure shoulder (43) adapted to bear in the closure position against the seat formed by the change of section (34) in the flow passage (30) in the body (25), so as to shut off the flow passage (30) and, projecting from said closure shoulder, an opening adjustment tip (42) that has a nonuniform section and is engaged in the constriction (33) to define a certain flow section therewith in each intermediate position of the needle (40).

Figure 3